

REMARKS/ARGUMENTS

The Applicants thank the Examiner for the thorough consideration given the present application. Claims 19-30 are pending in the present application. Claims 19 and 22 have been amended. The Examiner is respectfully requested to reconsider his rejections of claims 19-30 in view of the Amendments and Remarks as set forth hereinbelow.

Objection to the Specification

The Examiner has objected to the specification as including an Abstract of the Disclosure which is allegedly too long. Accordingly, the original Abstract of the Disclosure has been deleted and a new Abstract of the Disclosure has been substituted.

Drawings

The Examiner has objected to the drawings, and more specifically, the Office Action indicates that drawings 42-51 have not been marked with a legend indicating that the drawings depict conventional art. Accordingly, attached are Replacement Sheets for Figures 42-51 and annotated copies of Figures 42-51 showing the new legend. The Examiner is respectfully requested to approve the proposed changes to Figures 42-51. Applicants respectfully request that the Examiner acknowledge acceptance of the drawings.

Claim for Priority

The Office Action has acknowledged the Applicant's claim for priority under 35 U.S.C. § 119. The Office Action has also indicated that certified copies of the priority documents have been received in earlier filed Application No. 09/180,188, and that copies of the certified copies of the priority documents have been received in the National Stage application. Accordingly, the Applicants do not have to take any further action to perfect their claim for priority at this time.

Acknowledgment of Information Disclosure Statements

The Examiner has acknowledged the consideration of the Information Disclosure Statement filed on December 16, 2003 by an initialed copy of the PTO-1449 form. However, the Examiner has not acknowledged the Information Disclosure Statement filed on March 4, 2003. Accordingly, the Examiner is respectfully requested to provide an initialed copy of the Information Disclosure Statement filed on March 4, 2003 with the next issued Office Action.

The Claims

The present application includes pending claims 19 – 30. Claims 1 – 18 have previously been canceled. In the present amendment, independent claims 19 and 25 have been amended. The Examiner is respectfully requested to reconsider the rejection of the claims in view of the amendments to claims 19 and 25 and the following remarks.

The Rejection of Claims 19-21, 23-26 and 28-30 under 35 U.S.C. § 102(e)

The Examiner has rejected claims 19-21, 23-26 and 28-30 under the provisions of 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,963,259 (Nakaya et al.). The Examiner has alleged on page 3, first full paragraph of the Office Action that the Nakaya et al. patent discloses the Applicants' claimed rounding information. The Applicants respectfully disagree.

The Nakaya et al. Patent

The Nakaya et al. patent discloses a video coding/decoding system for a high-resolution reference image. There is no detailed illustration and description of the video decoder. There is, however, a relatively detailed description of the video encoder which is illustrated in Figure 5. According to the Office Action the video encoder of Figure 5 includes a motion compensation circuit having a motion estimation section 401 and a synthesis circuit 4-1. The motion estimation section 401 is comprised of a matching circuit 409, a frame memory 407 and an interpolation circuit 405. A detailed illustration of the interpolation circuit 405 is provided in Figure 6. According to the Office Action, the interpolation circuit 405 allegedly includes the Applicants' claimed rounding information. (See page 3 of the Office Action, and column 10, lines 36 – 15 of the Nakaya et al. patent).

Nakaya's Rounding Is Not The Same As The Claimed Rounding Information

The Applicants respectfully submit that the rounding of a quotient disclosed in Nakaya et al. at column 10, lines 50-52 is not the same as Applicants' claimed rounding information. Moreover, there is no teaching, showing, or suggestion that the rounding information is included in a bitstream of video data that is decoded. In Applicants' Figure 35, there is a clear illustration of the encoded bitstream 19 and the output of the entropy decoder 51 which include both a motion vector 25b and interpolation precision indicating data 60. The encoded bitstream provides the entropy decoder 51 with both the claimed motion vector and rounding information. When the encoded bitstream is decoded, the rounding information is used to indicate accuracy.

The Nakaya et al. patent discloses a video encoder in Figure 5, but there is no corresponding illustration or disclosure of a video decoder. In column 10, lines 36 – 55, column 11, lines 1-21 and column 14, lines 4-23 and column 14, lines 65-67 there is disclosure of rounding a quotient. More specifically, the rounding relates to the values equal to the nearest integer multiple of $1/D$. Nakaya et al. in Figure 6 discloses a shift register 516 having outputs 518, 519, and 520 that are rounded. The shift register achieves division by four and rounding of the quotient. There is no disclosure that any information indicating the accuracy of this rounding is included in the encoded bitstream of video data, and there is not disclosure that the decoder of Nakaya et al. uses rounding information to indicate accuracy when decoding the video data. Accordingly, it is respectfully submitted that claims 19-21, 23-26 and 28-30 are not anticipated by the Nakaya et al. patent.

Claims 22 and 27

The Office Action has also rejected claims 22 and 27 as being unpatentable over the Nakaya et al. patent in view of the U.S. Patent 6,236,682 (Ota et al.). It is respectfully submitted that claims 22 and 27 are patentable over the cited prior art for at least the same reasons as the independent claims from which they respectively depend.

Conclusion

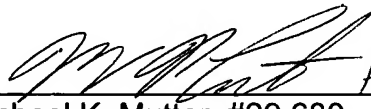
In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Richard J. McGrath (Reg. No. 29,195) at the telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachments: 10 sheets of Red Ink Drawings
10 Replacements Sheets of Drawings

AMENDMENTS TO THE DRAWINGS

Attached hereto is(are) ten (10) sheet(s) of corrected formal drawings that comply with the provisions of 37 C.F.R. § 1.84. The corrected formal drawings incorporate the following drawing changes:

*The attached sheet of drawings includes changes to Figures 42-51.
These Replacement Sheets replace the original sheets for Figures 42-51.
In the original sheets, the legend "Conventional Art" was not included.
The proposed addition of the legend "Conventional Art" is shown in the annotated sheets showing changes.*

It is respectfully requested that the corrected formal drawings be approved and made a part of the record of the above-identified application.

Appendix: Annotated and Corrected Formal Drawings



42/51

Fig.42 CONVENTIONAL ART

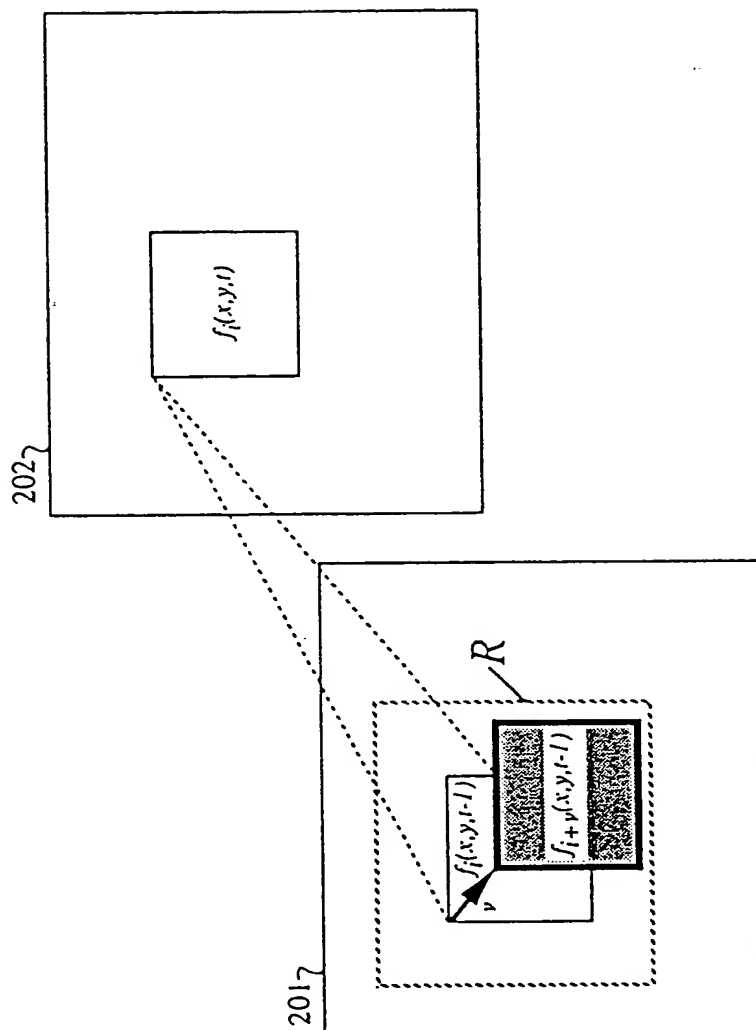


Fig. 43 CONVENTIONAL ART

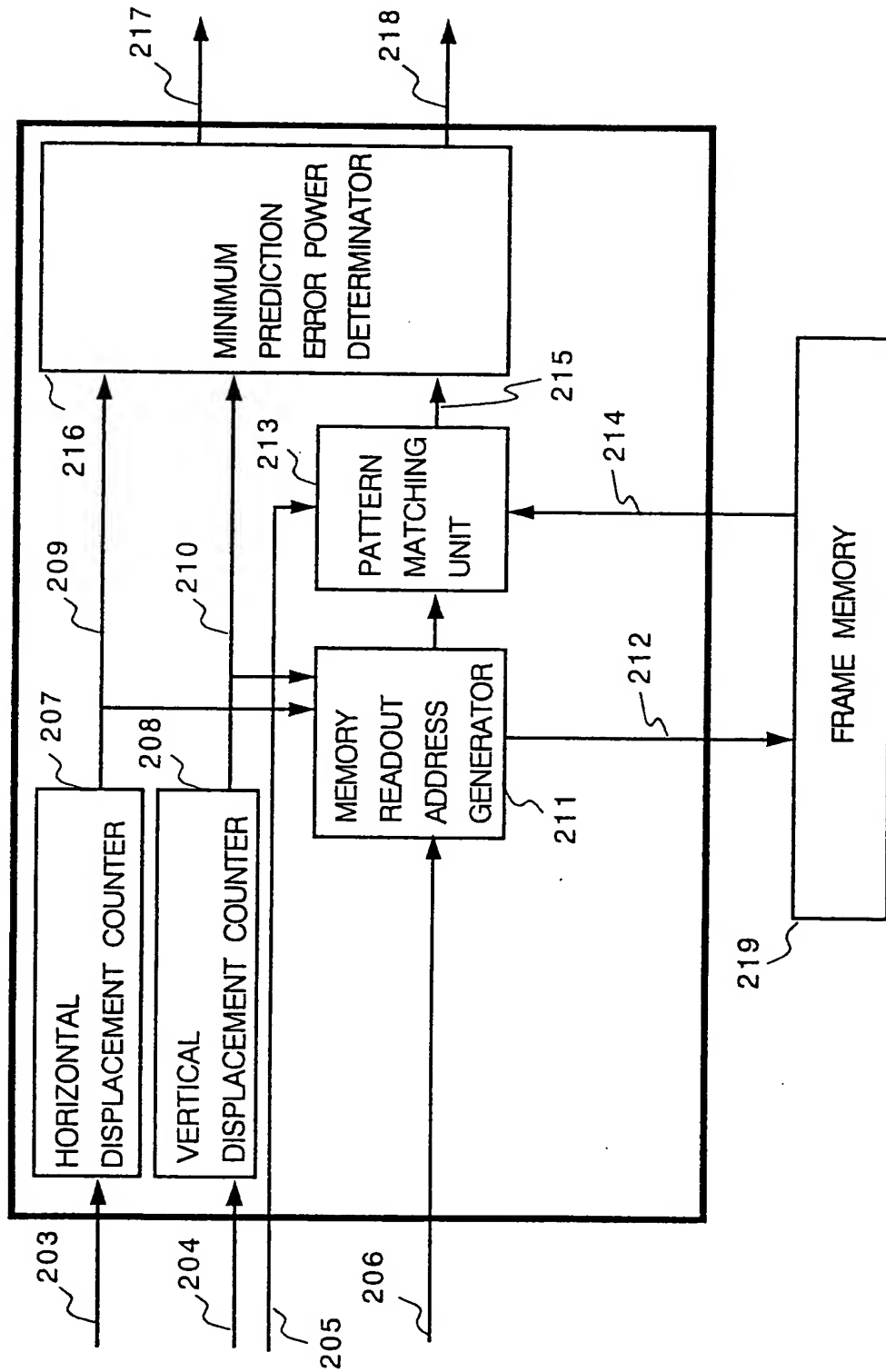


Fig.44 CONVENTIONAL ART

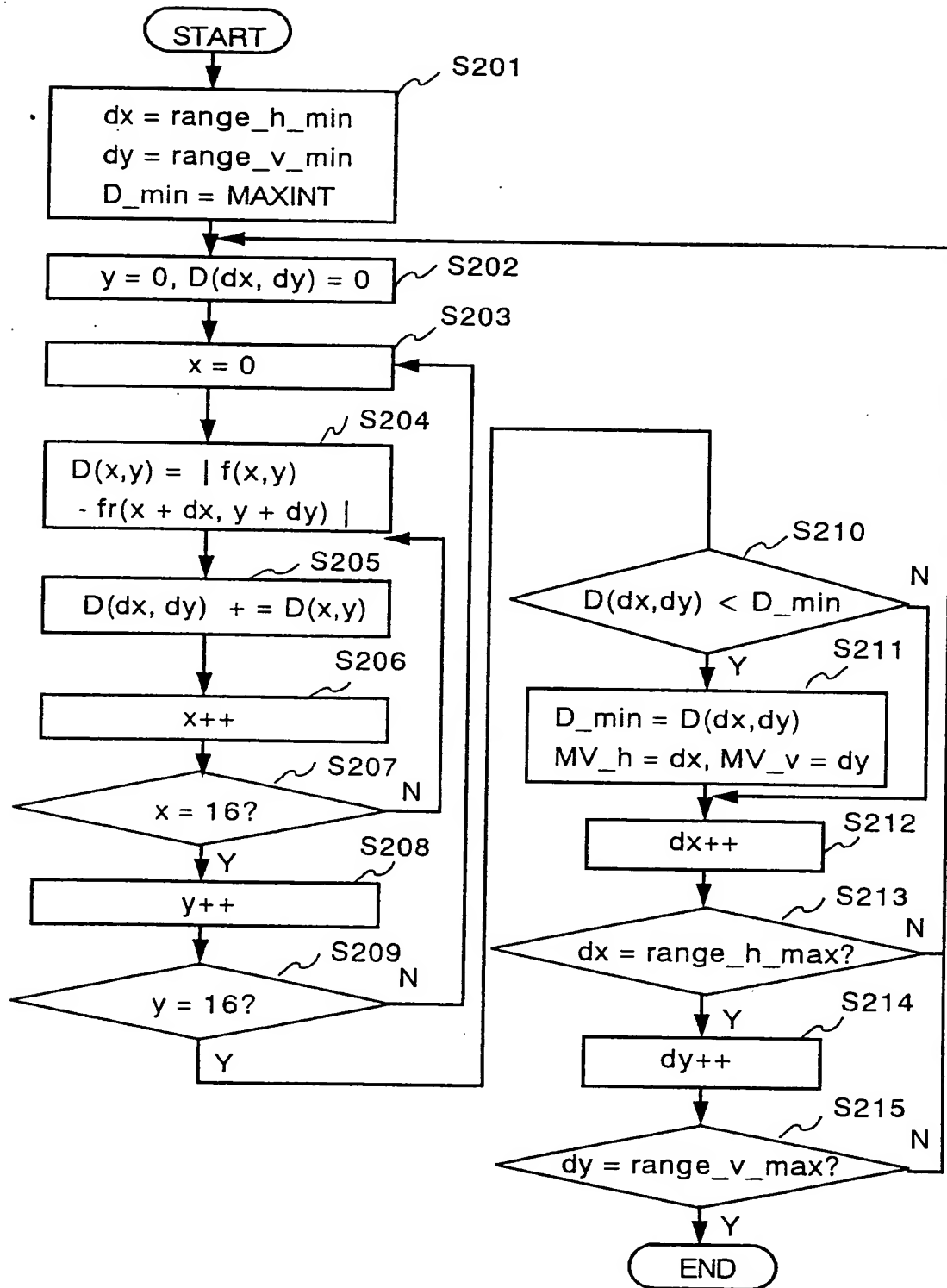
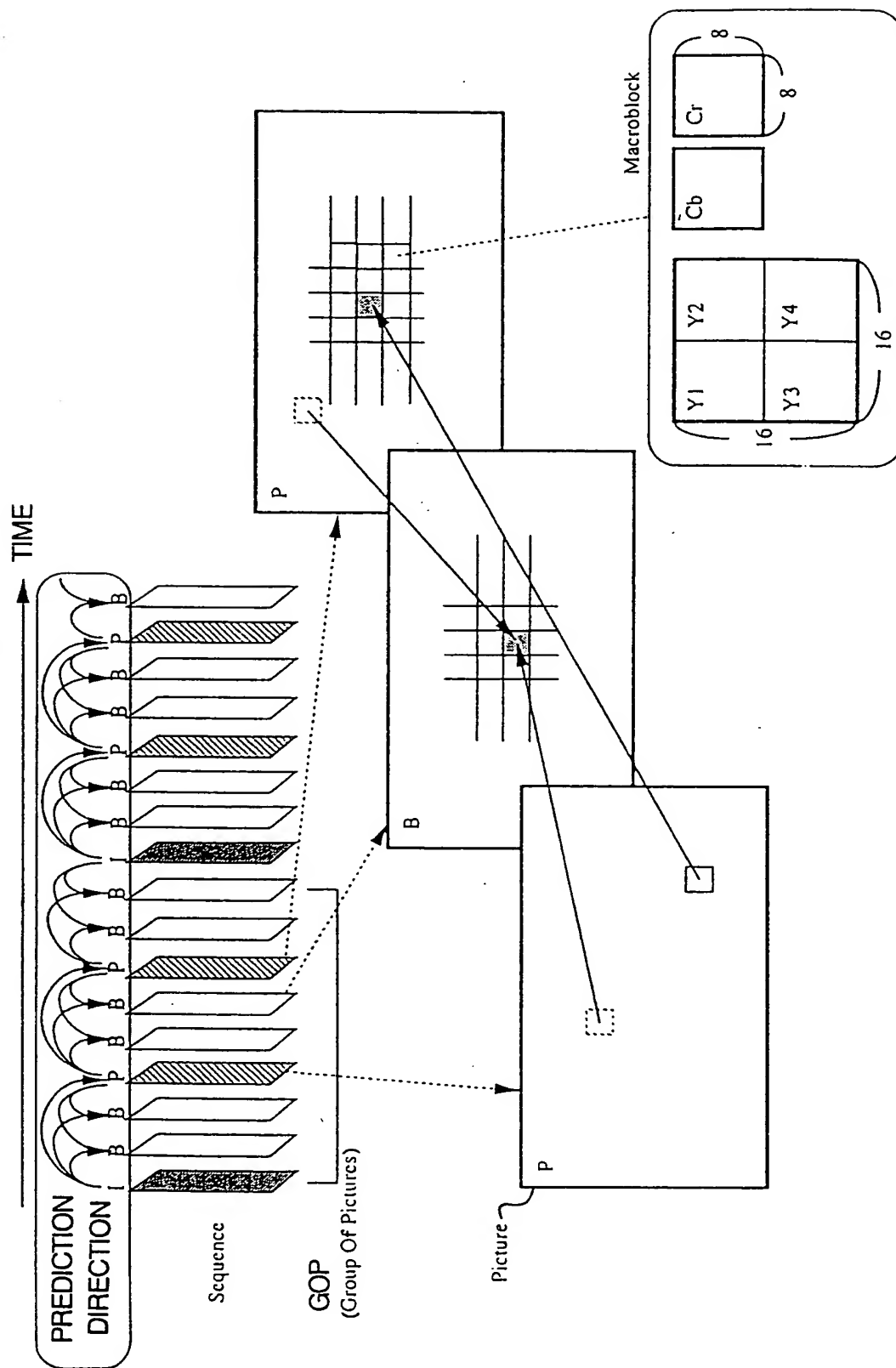


Fig. 45 CONVENTIONAL ART



CONVENTIONAL
ART

Fig.46

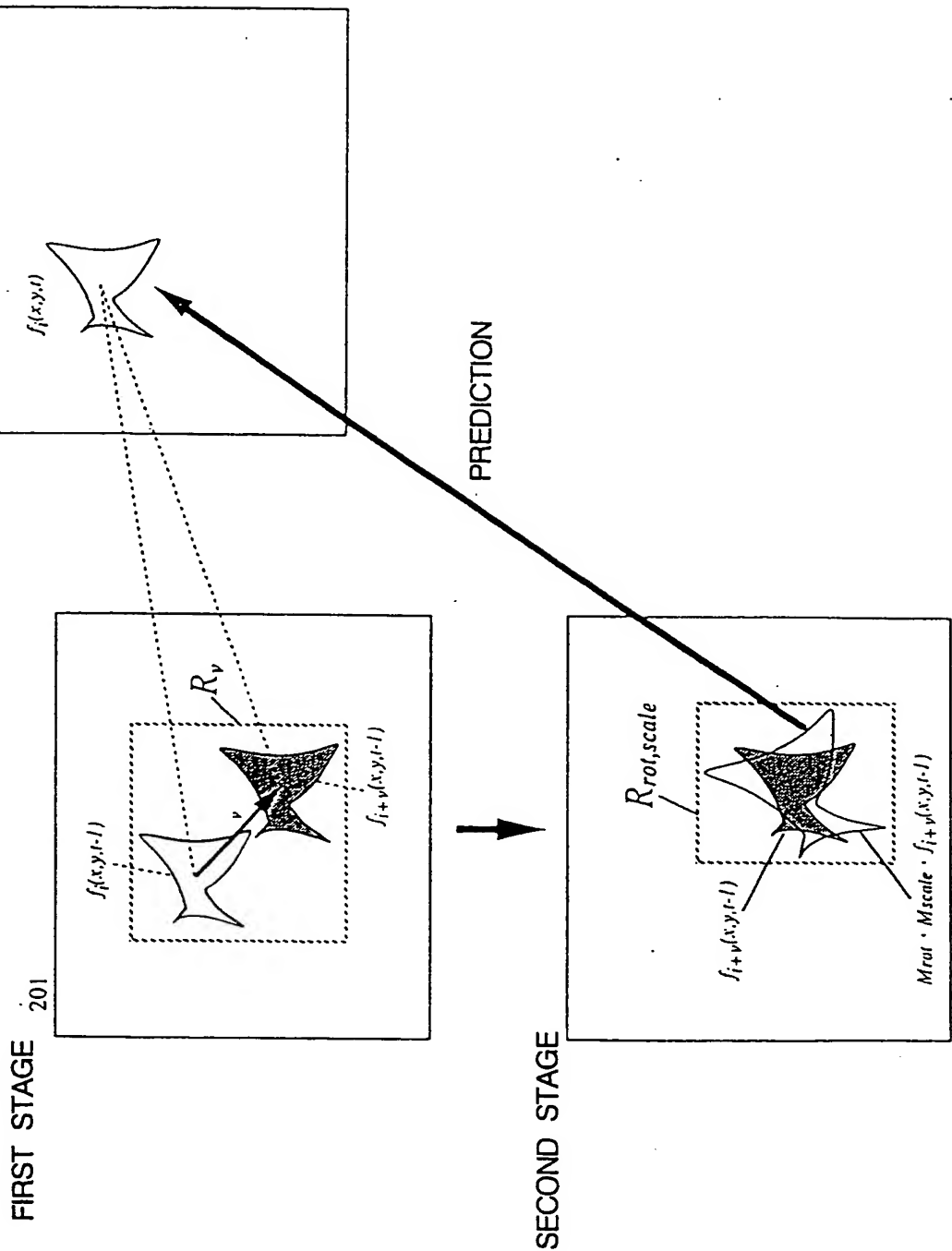
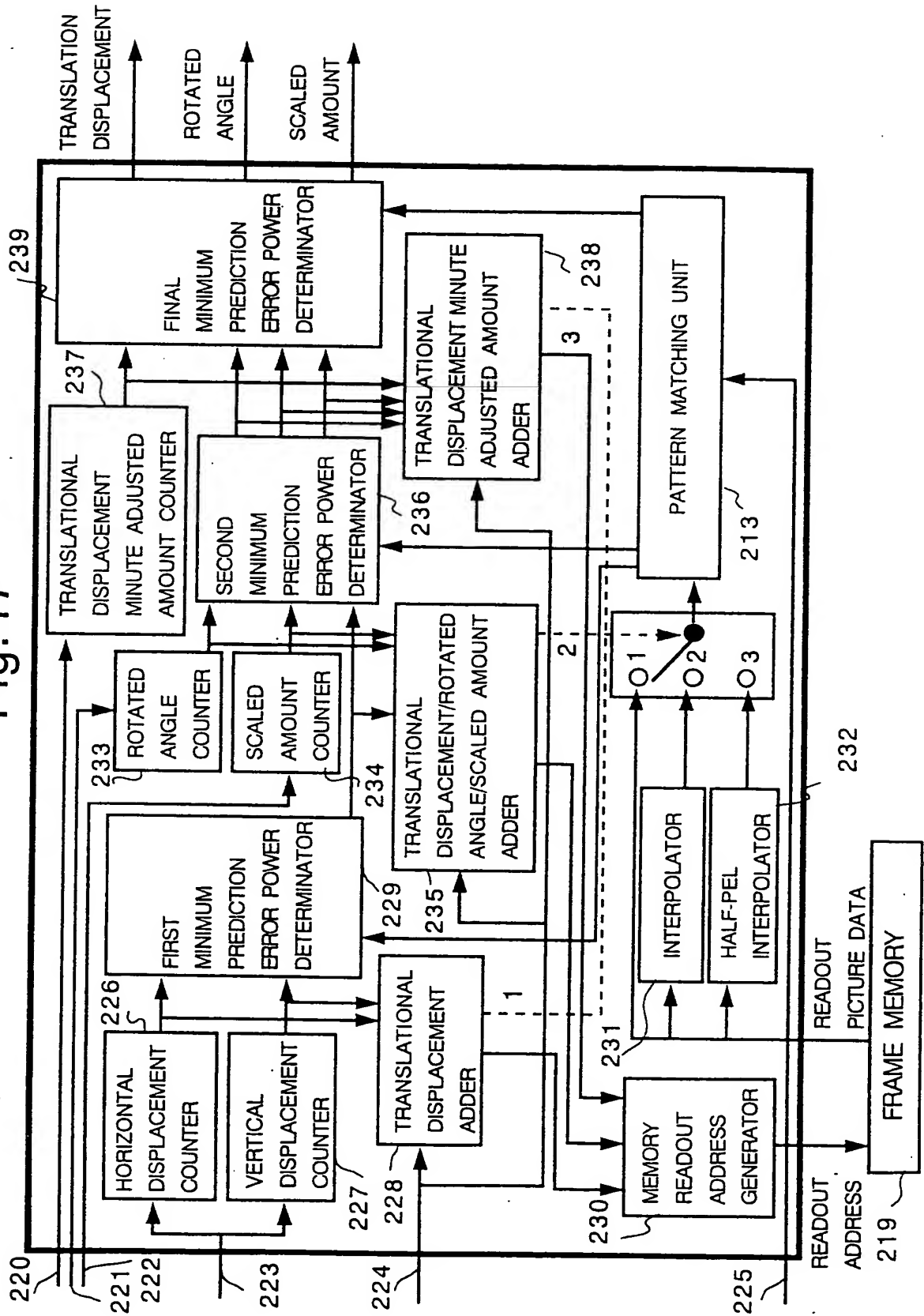


Fig. 47
CONVENTIONAL ART



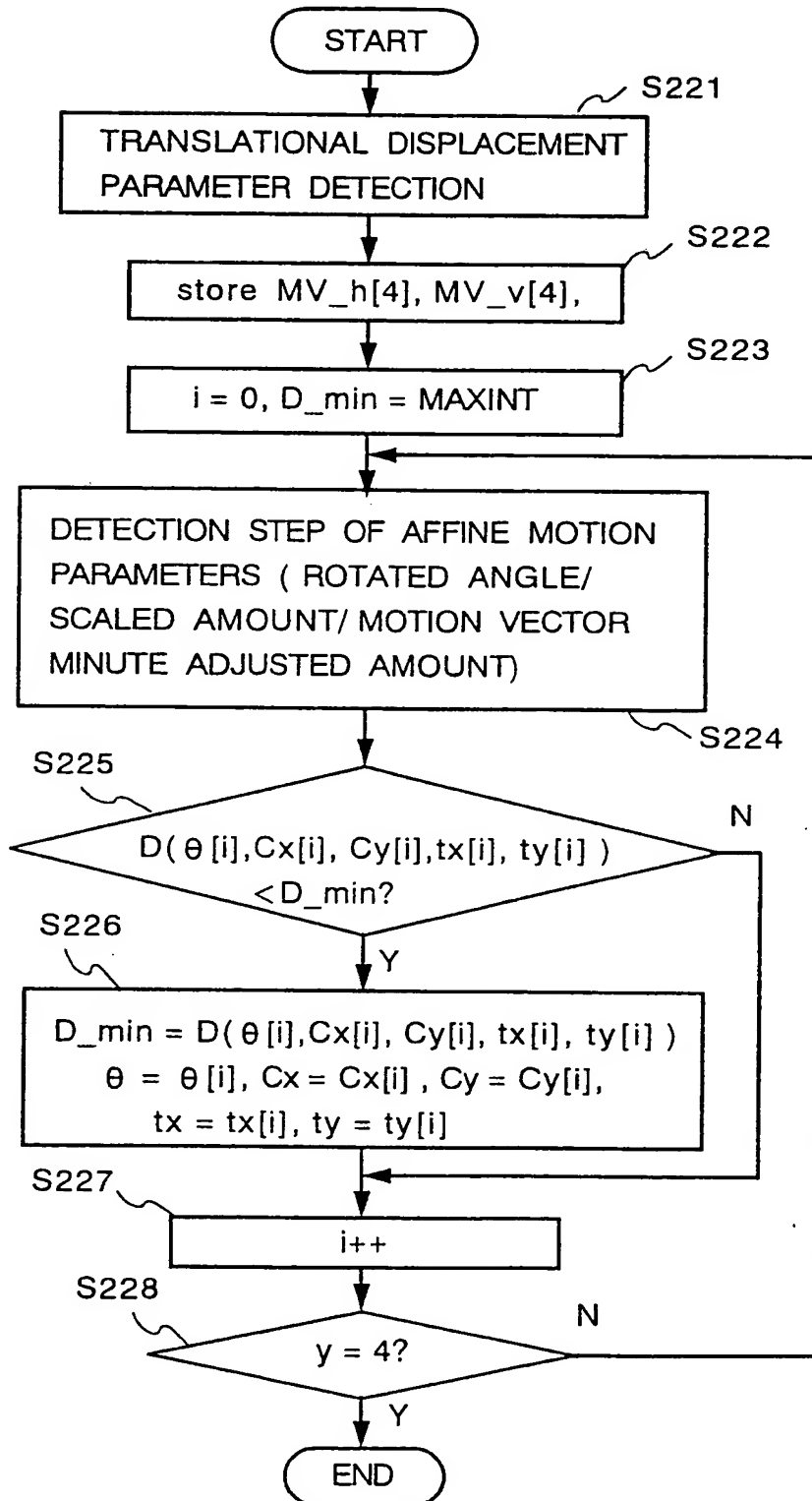
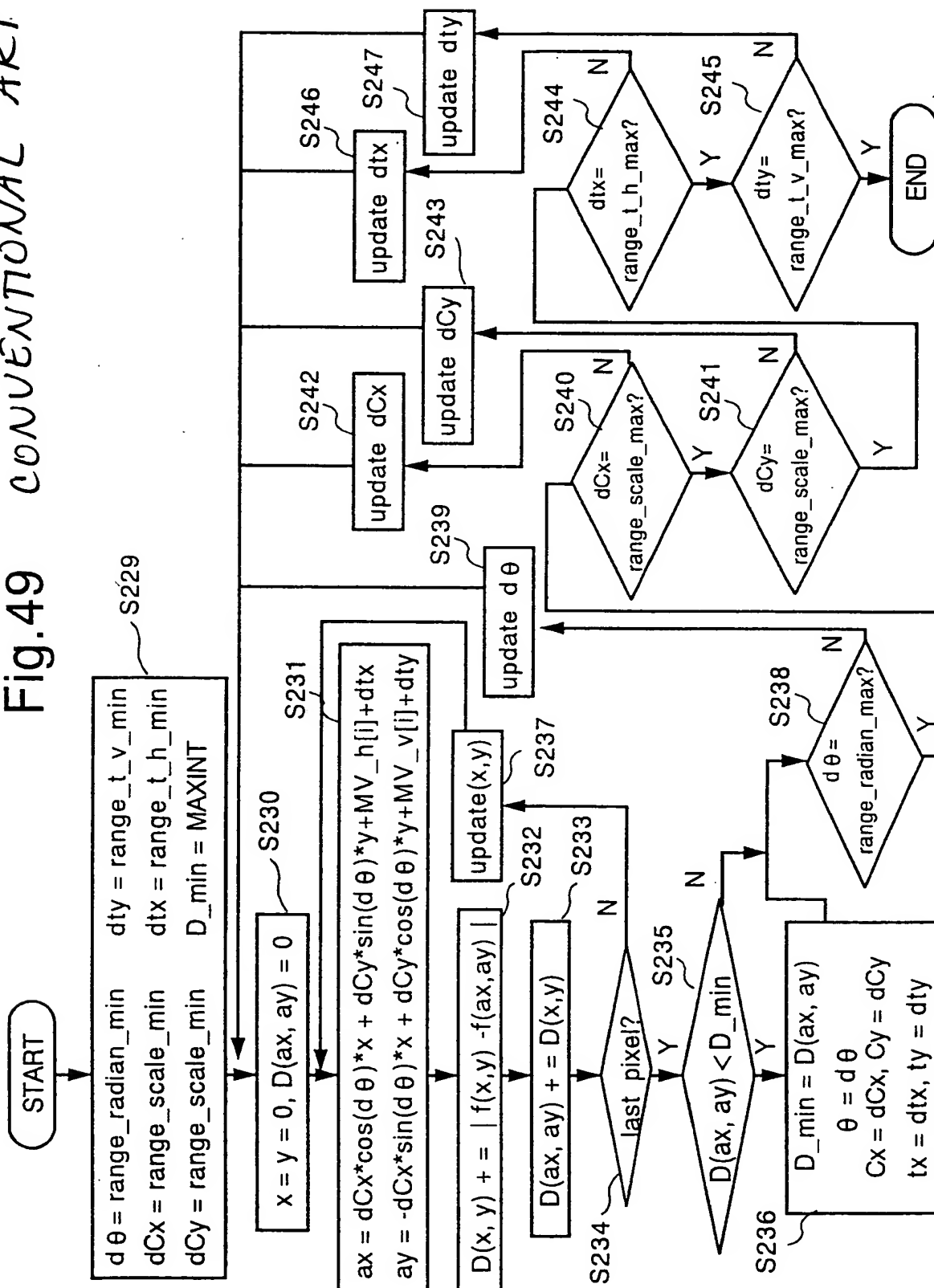


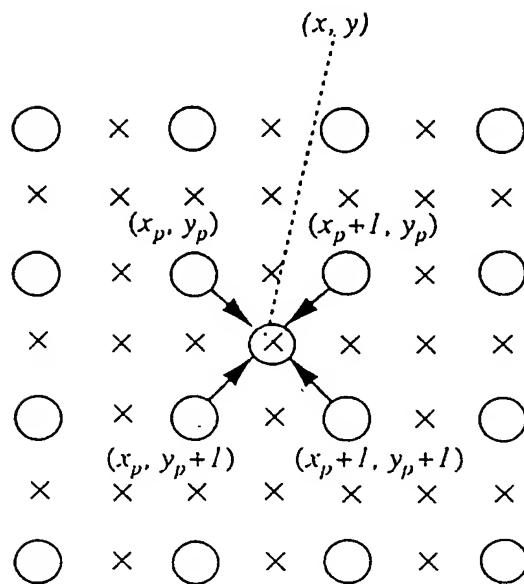
Fig.49 CONVENTIONAL ART



50/51

Fig.50

CONVENTIONAL ART



51/51

Fig.51

CONVENTIONAL ART

